

- b. two permanent magnets [(9, 10)] magnetized in opposite directions, transverse to the axis of a guidance stator tube [(1)], the stator tube having magnetic poles [(2)] disposed along at least one wall of the stator tube so as to be successively facing the moving magnetic poles during the travel of [the] a moving rig, and
- c. means for switching the direction of the current in the coils, wherein the permanent magnets [(9, 10)] are disposed outside the coils and magnetized along an axis parallel to the axis of the coil, and the stator magnetic poles comprise pieces [(2)] made of magnetic material fixed in a guidance tube made of amagnetic material, the dimension of the magnets as measured along their magnetic axis being chosen so as to create narrow gaps to allow movement of the magnets past the stator poles.

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- 3 (8). (twice amended) The motor as claimed in one of claims [2] 13, 14 or 15, wherein [the] magnets of opposite polarity which relate to a phase are disposed symmetrically [with respect to the plane containing the axis of the coil and perpendicular to the axis of the stator tube, that is to say disposed] in front of and behind the coil in the direction of motion.
- 4 (9). (twice amended) The motor as claimed in one of claims [2] 13, 14 or 15, wherein the magnets of opposite polarity which relate to a phase are disposed symmetrically with respect to the plane containing the axis of the [coil and the axis of the stator tube] rail.
- 5 (2). (twice amended) The motor as claimed in [one of claims 2 to 4] claim 1, wherein the guidance stator tube[(1)]comprises a rectangular U-profile member on two opposite internal walls of which are fixed lugs or pads [(2)] made of magnetic material which constitute [constituting] the stator poles.

6 (15). (twice amended) The two-phase motor with two coils as claimed in [one of claims 2 to 4] claim 13 wherein the axes of the coils are offset by a quarter or three quarters of a spacing relative to the stator spacing defined by the distance between the positions of two consecutive stator pole pieces.

7 (16). (twice amended) The three-phase motor with three coils as claimed in one of claims 1, 5, 12-15, and 22 [to 5], wherein the [axes of the coils] phases are offset by a third or two thirds of a spacing relative to the stator spacing defined by the distance between the positions of two consecutive stator pole pieces.

8 (17). (twice amended) The motor as claimed in one of claims 1, 5, 12-15, and 22 [ 2 to 4], wherein [the] subassemblies which constitute [constituting] each of the phases are articulated [(14)] together.

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12 (3). (twice amended) The motor as claimed in claim 1, wherein [the moving rig] an active part comprises a magnetic short-circuit plate made of a soft ferromagnetic material [(18)] disposed on the face of the [moving rig] active part parallel and opposite to the stator poles [(2)] in such a way as to create an image [(2')] of the stator poles.

13 (5). (twice amended) A flux switching linear motor comprising:

- an active part with at least two phases, each phase comprising at least:
- a magnetic core,

- an electric winding wound around at least one part of the magnetic core, and
- two magnets; and
- a passive part including:
  - a non magnetic rail defined along an axis, and
  - a plurality of independent ferromagnetic tiles, regularly spaced on said rail, in which the induced magnetic flux in the winding is mainly [fed] supplied by the first magnet in a first relative position of the active and of the passive parts, and is mainly [fed] supplied by the second magnet in a second relative position of the active and of the passive parts.

14 (6). The motor of claim 13, wherein the two magnets are polarized in opposite directions parallel to the magnetic core.

15 (7). The motor of claim 13, wherein the two magnets are polarised in opposite directions perpendicular to a surface of the non magnetic rail.

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17 (13). (amended) The motor as claimed in one of claims 5, 12, 13-15, and 22 [16], wherein the [moving rig] active part is supplied with DC current and that the means for switching the current are mounted on the [moving rig] active part.

18 (14). (twice amended) The motor as claimed in one of claims 5, 12-15 and 22 [17], wherein the [moving rig] active part contains, parallel to the axis of the coils, feedthroughs [(17)] made of soft ferromagnetic material.

19 (18). (amended) The motor as claimed in one of claims 1, 5, 12-15, and 22 [6], wherein two consecutive phases share a common magnet.